UNIT 12 INTEGRATED APPLICATIONS

Structure

12.1   INTRODUCTION

In the present competitive business age everybody wish to choose a system that suits his business processes. Integrated systems are the systems that help in integrating key business and management functions. They provide a high-level view of all the activities that are going on in the business. In the earlier days, data used to be collected from different nodes and then compiled in the form of a summary report. All these processes were too time consuming. Presently the software does this compilation or integration work. There are many packages that integrate the activities of different business divisions and thus allow the businesses to devote more time on productive things. However there are different needs of different business and one should be careful in deciding about a software that would be useful to him. Any company looks for these packages to integrate its corporate functions like finance, manufacturing and human resources. This is a critical activity. As a budding manager you should be able to understand the system requirement of your company. You should be able to define the information flow, information requirements and information usage so that you gain competitive edge. This unit is thus an attempt to keep you updated on the latest in the business solutions area.

12.2   OBJECTIVES

After reading this unit you should be able to

*   Explain the concept of integrated software applications;

*   Describe their advantages and business utility; and

*   Discuss the business solutions offered by market leaders.

12.3   INTEGRATED SOFTWARE APPLICATIONS

Literal meaning of "Integration" is combination or amalgamation. In terms of computer terminology, "Integration" is a broad term for any software that serves to join together or act as a go-between between two separate and usually already

existing applications. Integrated software applications for business gives you the ability to integrate the diverse information sources pertaining to your business into a single framework. This integrated information can then be shared by applications such as Customer relationship Management (CRM), Supply Chain Management (SCM) and Business process Re-engineering (BPR) systems.

Let us see the definitions (source: http://www.webopedia.com) of the terms that we have used above:

ERP: Short for *enterprise resource planning,* a business management system that integrates all facets of the business, including planning, manufacturing, sales, and marketing. As the ERP methodology has become more popular, software applications have emerged to help business managers implement ERP in business activities such as inventory control, order tracking, customer service, finance and human resources.

CRM: Short for *customer relationship management.* CRM entails all aspects of interaction a company has with its customer, whether it be sales or service related. Computerization has changed the way companies are approaching their CRM strategies because it has also changed consumer-buying behavior. With each new advance in technology, especially the proliferation of self-service channels like the Web and WAP phones, more of the relationship is being managed electronically. Organizations are therefore looking for ways to personalize online experiences (a process also referred to as mass customization) through tools such as help-desk software, e-mail organizers and Web development applications.

SCM: Short for *supply chain management*, the control of the supply chain as a process from supplier to manufacturer to wholesaler to retailer to consumer. Supply chain management does not involve only the movement of a physical product (such as a microchip) through the chain but also any data that goes along with the product (such as order status information, payment schedules, and ownership titles) and the actual entities that handle the product from stage to stage of the supply chain.

There are essentially three goals of SCM: to reduce inventory, to increase the speed of transactions with real-time data exchange, and to increase revenue by satisfying customer demands more efficiently.

In computing, SCM typically is used in reference to software applications that enable more efficient management of the supply chain.

BPR: Short for Business Process Re-engineering. It is aimed to make radical changes in an organization from the ground up in an aim to improve performance and make more efficient use of resources. The concept of BPR generally includes the use of computers and information technology to organize data, project trends, etc. (Source: http://www. computeruser.com/resources/dictionary)

Many big companies are giving high importance to software integration. Today nobody wants to access data stored in multiple systems. They want to build strong links between business systems and make information flow better. Let us take an example, suppose you want to place an order through the net. An integrated software solution will, on one hand, take that order, shift it and allocate them to the manufacturing plant and on the other hand place order for the raw materials on the basis of the stock, update the financial position of the company with respect to suppliers and the inventory and so on. Many people have given different names to the integration of ERP, SCM, BPR and CRM. These names include e-business, c-business, m-business and KM etc.

There are many software that do these integration activities. To name a few there are software known as Baan, Fourth Shift, Frida, JD Edwards One World, Manage 2000, Masterpiece - MP/Net, Micro strategy, Oracle e-Business Suite, People Soft and SAP R/3. We will discuss few among them.

12.4   ADVANTAGES AND BUSINESS UTILITY

There is a lot of interest among IT solution providers about packages that help in ERP, SCM, BPR and CRM. The plea given is that they help in real business growth. Companies actually want to integrate their diverse business processes to simplify operations for faster decision-making. Many companies have realized that if they have to survive and grow, they have to use tools that can provide quicker and useful information and cut costs to increase efficiency. Till now IT was used in large and multinational companies only. Small companies were not willing to invest more on IT. In India, on an average, small and medium companies were reluctant to invest more than 2-5% on IT. Circumstances have changed now. Businesses are not trying really hard to reap the benefits of IT for gaining competitive advantages. IT has given businesses a chance to generate information in real-time and thus grab opportunities that were non-existent or unseen earlier. With the development of cutting-edge technology, we have seen evolution of many systems that has adapted market demands. IT is readily providing business solutions now. These solutions provides a platform to integrate all processes in an organization enabling it to plan, trace and see its 4-m resources (materials, machines, men and money) in the best possible ways to service customers and reduce costs. If you want that your Business should survive with low overheads and still run efficiently then you have no choice but to opt for IT solutions.

A typical business solution is an integration of ERP, BPR, SCM and SCM. While ERP can take care of functions like accounts production planning, payroll and marketing etc., BPR can be used simultaneously to cut-down on all non-value added business processes and paperwork. These systems are the enablers of change in the business for better. With the help of these systems your business can compete better. These systems if combined with the web help you to reach your customers most cost-effectively. There would be no cost incurred on travel and communication and no cost incurred on setting up offices and employees.

The key to establishing a good IT system lies in the proper planning. Businesses should first specify their needs, processes and key data. They should clearly specify the kind of information and its flow. Once these specifications are done, it is the integration of information that is required. Once integration is done, information is accessible to every department around the company.
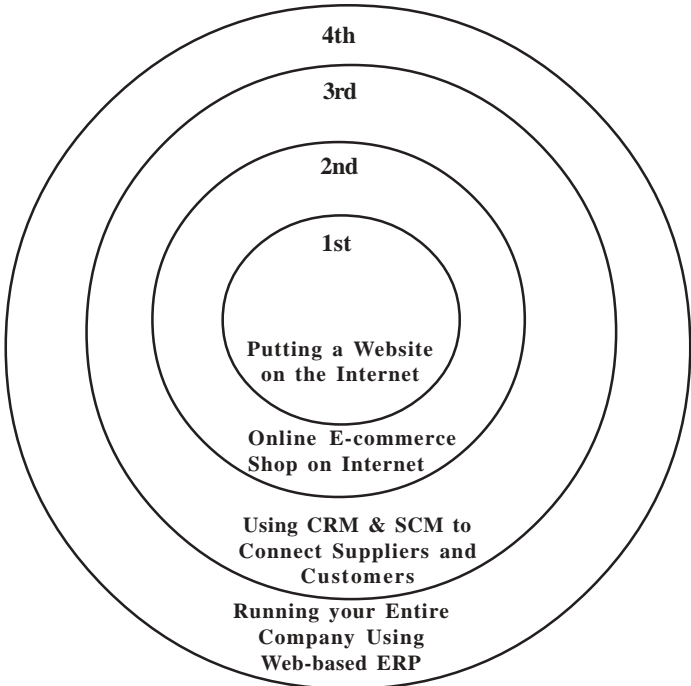

Figure 12.1: Generations of E-business

given above is a pictorial representation of the generations of e-business. By this you would be able to appreciate why we are talking about integrations and business solutions and what place it has in the present world. It can also be seen that many of the businesses in India have not yet touched the first generation even. It can be seen that 4th generations business solutions are using web to integrate all systems. ERP is used in a broader term here.

Activity A

Take the case of your organization or any other organization of your choice. Classify the activities of the organization with respect to the generations of e-business. Mention all the features by virtue of which you have done this classification.

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12.5 THE COMPETITION

In this unit we would introduce to some of the leading players providing IT based business solutions. But before entering what these players are offering, lets see the interesting competition that is prevailing presently.

SAP is the third largest independent software company in the world. Microsoft has taken an entry into SAP's market. SAP was founded in 1972 by five former IBM employees with a purpose of reducing expenditure on programmers for basic functions like order processing and bookkeeping. It offered a set of pre-built software programs. SAP was the first to redesign its software to work with distributed client-server networks. Their products gained prominence with their application suite "R/3". Microsoft and Oracle are the only companies that sell more software than SAP.

ERP market
Just this minute

Microsoft

Oracle

PeopleSoft

JD Edwards

DataResearch DPU
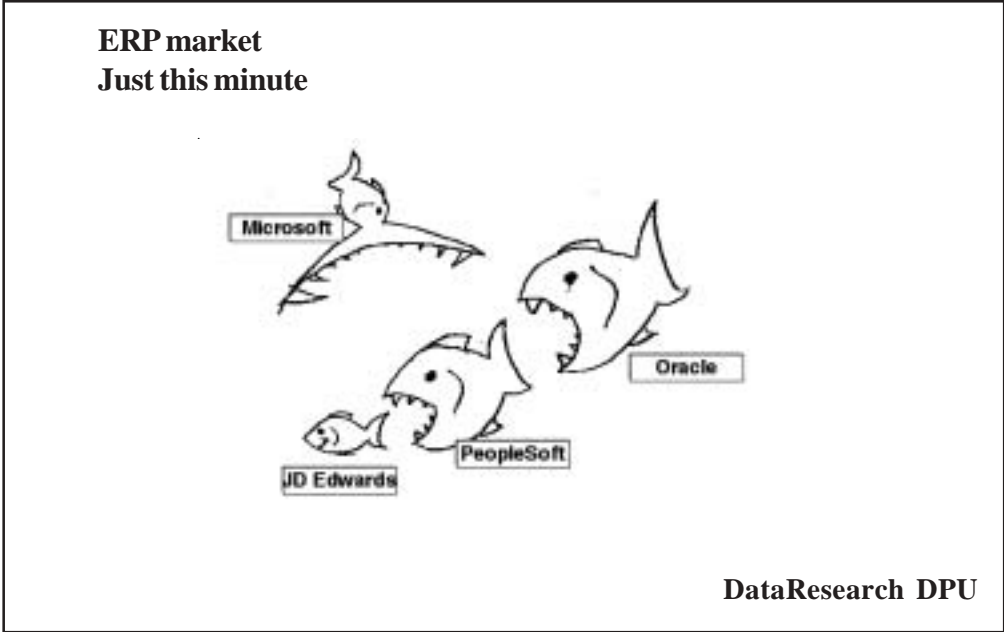
Figure 12.2 : ERP Market Just this Minute

Source: *http://www.dpu.se/rankerp_e.html*

It is the market for small and midsize companies that triggered the competition with Microsoft launching its products. As the *figure 12.1* suggests that there is a fight to increase the market share. PeopleSoft has already acquired its next smallest competitor, J.D. Edwards and Oracle launched an aggressive bid for PeopleSoft. As there are major shifts in technology and new buying trends, these companies have to innovate in order to grow. In tune to this SAP has introduced NetWeaver with easier modification features and more enhanced ability to work with other systems.

SAP is now trying to prevent Oracle's acquisition of PeopleSoft. It is also not ready to accept Microsoft as a major competitive force in the business applications market. In a nutshell there is so much of competition in the market that big players like SAP recently re-launched an initiative to tackle smaller accounts with a cheaper, scaled-down version of its software while striking up reseller partnerships with computer dealers that cater to small businesses.

12.6 BUSINESS SOFTWARE SOLUTIONS FROM SAP

There are rapid changes in business world. New products are introduced and new alliances are set-up. The companies, which are previously operating locally, are looking for expansion of global markets. There is manifold increase in competition. SAP is a world leader in business software solutions, with industry-specific products for virtually every aspect of operations. SAP claims that its solutions are built on such technologies that they will integrate with any systems. This is an important property as it enables to preserve your previous investment on it and do not have to major changes while migrating to SAP.

Figure 12.3: Global Picture of SAP Business Solutions

SAP offers highly specialized solutions and is the world leader is evident from the figure 12.3. With installations in 60000 customer locations in 120 countries, SAP is developed and supported by more than 28000 professionals from its global network. Its popularity can be verified from the fact that 19000 organizations worldwide run on SAP. SAP claims that its solutions are designed in such a way so that the businesses get a better return on their technology investment. SAP claims to achieve great

panies, large and small e.g. Brother International got a 129% return on its investment on SAP's customer relationship management program and Volvo Construction Equipment achieved an 89% increase in sales, a 43% reduction in shipping lead times, and a fourfold increase in revenue per employee with the help of SAP's supply chain management program. SAP's solutions are available for many industries like aerospace and defense, engineering, construction, and operations, financial service providers, insurance, telecommunications and banking etc. SAP offers a suite that helps businesses to respond more quickly to changing customer needs and market conditions. SAP business suite includes CRM, Financials, HR, SRM and SCM and many more. The table given below describes them.

Table 12.1: SAP Solutions Under its Business Suite

S.no	Solutions	Description
1	mySAP™ Customer Relationship Management	The fully integrated CRM solution that facilitates world-class service across all customer touch points
2	mySAP™ Financials	The leading solution for operational, analytical, and collaborative financial management
3	mySAP™ Human Resources	The HR resource that helps more than 7,800 organizations worldwide maximize their return on human capital
4	mySAP™ Marketplace	An online marketplace solution that allows your company to buy, sell, and conduct business around the clock and around the world
5	mySAP™ Product Lifecycle Management	The collaborative solution that helps your designers, engineers, and suppliers achieve new levels of innovation
6	mySAP™ Supplier Relationship Management	Covers the full supply cycle – from strategic sourcing to operational procurement and supplier enablement for lower costs and faster process cycles
7	mySAP™ Supply Chain Management	The world's number one SCM solution. Gives you the power to dramatically improve your planning, responsiveness, and execution

Source: *http://www.sap.com/*

SAP claims that since its solutions are based on open technologies they can integrate across technologies and organizations to bring together people, information, and business processes. SAP software comes in two bundles mySAP™ All in One and SAP® Business One. An all-In-One solution helps in management of financials, human resources, supply chain, customer relationships, and other key business processes and is good if you want industry-specific functionality. SAP business one is good if you want to perform your core business functions.

Figure 12.4 show that SAP solutions share common values. They integrate people, systems and thus information. They have the ability to expand the number of users or increase the capabilities of computing solution users without making major changes to the systems or application software. These solutions are capable of responding to changing social, technological, economic and market conditions. These solutions are easy to implement and cost effective if you look at the long-term costs. A lot of   real-
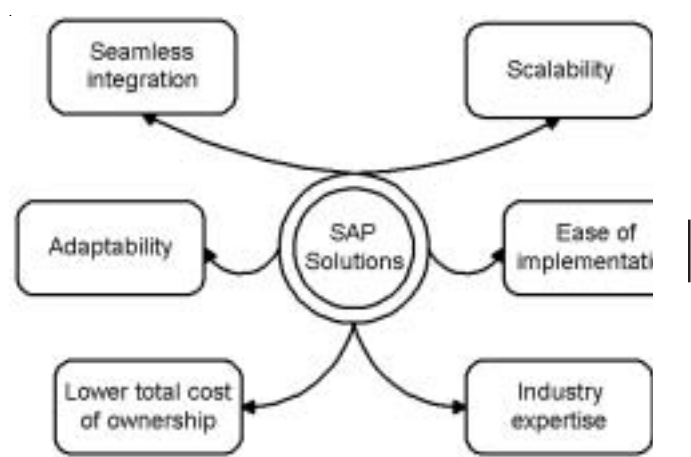
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world experience is put into these solutions.

Figure 12.4: Common Values of SAP Solutions

Source: *(Based on http://www.sap.com/)*

12.7 BUSINESS SOFTWARE SOLUTIONS FROM PEOPLE SOFT

We have been talking about the competition that is prevalent between the big players in the market. As per the intentions shown in *Figure 12.2*, JD Edwards has already become a part of PeopleSoft.

PeopleSoft offers solutions that are ideally suited for company-wide functions such as human resources, finance, IT, procurement, marketing, services and sales across all industries. It works on pure Internet architecture that makes integration easier. PeopleSoft's solutions are available for many industries like financial, government, education, healthcare and other services industries. PeopleSoft offers solutions for Customer Relationship Management, Financial Management, Human Capital Management, Service Automation, Supplier Relationship Management and Supply Chain Management.

The table given below describes them.

Table 12.2: People Soft Solutions Under its Business Suite

S.no.	Solutions	Description
1	PeopleSoft® Enterprise Customer Relationship Management	A comprehensive solution offering real-time intelligence for smarter decisions. Seamless integration among customers, financials, supply chain, and employee management systems possible
2	PeopleSoft® Enterprise Financial Management	With this you can achieve productivity gains, slash implementation time and costs & significantly lower risks associated with human error, employee changes, and other factors.
3	PeopleSoft® Enterprise Human Capital Management (HCM)	It is an enterprise-wide business strategy to streamline, deploy, and align the workforce to drive a higher level of business performance.
4	PeopleSoft® Enterprise	It is the only suite that gives you real-time

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	Service Automation	visibility and control over operating costs. You can optimize your project investments, reduce project delivery costs and maximize resources to increase utilization
5	PeopleSoft® Enterprise Supplier Relationship Management (SRM)	It is a powerful solution that makes the entire purchasing process more cost-efficient and enables more strategic and prudent spending decisions.
6	PeopleSoft® Enterprise Supply Chain Management (SCM)	These are the solutions that promote business-to-business interaction throughout the supply chain, from customer to supplier.

Source: *http://www.peoplesoft.com/*

In a nutshell, PeopleSoft offers a family of applications that are integrated. These solutions have integrated business processes, data and applications. It gives power and flexibility to enhance, deploy, and extend your applications.

12.8 BUSINESS SOFTWARE SOLUTIONS FROM ORACLE

Oracle has an e-Business suite that offers a complete set of applications, which are capable of automating many functions of the daily business processes. Oracle's e-business suite encompasses a wide array of functions. Figure 12.5 is the representation of such functions.

Figure 12.5: Oracle's E-business Suit Applications

Source: *http://www.oracle.com/*

Oracle e-business suite is an integrated set of business applications that deliver comprehensive procedural computerization and thus complete information. Information finally helps businesses in taking more informed decisions. Oracle has got a lot of satisfied customers like McData has found Oracle e-business suite to be a seamless, fully integrated and modular business solution that has enabled them to

meet the challenge of their growing business operations; American Power Conversion deployed Oracle e-business suite to make reliable and accurate data accessible to all its employees in real-time; TATA Teleservices gained by getting a competitive edge in building customer relationships and GE Energy used this integrated solution to identify their business opportunities. The table below gives you a global view of different modules of Oracle e-business suite.

Table 12.3: Oracle Solutions Under its Business Suite

S.no.	Solutions	Description
1	Oracle Contracts	Oracle Contracts automates the complete contract lifecycle for multiple types of contracts. Oracle Contracts provides a single view of your contracts base to all departments .
2	Oracle Financials	Oracle Financials is an integrated solution that gives you complete visibility into your finances and control over all transactions, while increasing the efficiency of your operations.
3	Oracle Human Resources Management System (HRMS)	This solution readies your company to rapidly deploy the best resources for maximum employee productivity, satisfaction, and retention.
4	Oracle Business Intelligence	Oracle business intelligence solutions help you meet the information needs of your users by providing self-service, Web-based access to information. It provides hundreds of pre-built reports and analytic capabilities. Oracle addresses the full spectrum of business intelligence requirements, such as data quality, data analysis, and information access.
5	Oracle Learning Management	Oracle Learning Management provides a complete infrastructure that lets organizations manage, deliver, and track training, in both online and classroom environments.
6	Oracle Maintenance Management	Oracle Maintenance Management helps you plan and execute maintenance activity for any asset, as well as keep track of information on asset costs and activities throughout an enterprise.
7	Oracle Manufacturing	Oracle Manufacturing is a set of collaborative applications that optimize production capacity beginning with raw materials through final products, regardless of the manufacturing methodology used.
8	Oracle Marketing	Oracle Marketing integrates with Sales, Finance and the rest of your organization, for better planning and execution. It drives profit by intelligently marketing to the most profitable customers.
9	Oracle Order Management	Oracle Order Management uses Oracle Workflow to support tailored, automated fulfillment processes, without the need for customization. It captures demand from multiple channels using a variety of communication methods.

10	Oracle Procurement	Oracle Procurement is an integrated set of applications that connects all your purchasing functions, including sourcing, purchase order management, receiving, and payables, to give you a central repository of purchasing information, along with fully automated, self-service capabilities.
11	Oracle Product Lifecycle Management	Oracle Product Lifecycle Management is collection of applications that gives you a centralized repository of product and project information that will help you manage product activities collaboratively.
12	Oracle Projects	Oracle Projects, a set of Internet-enabled applications, delivers centralized project management functionality and serves as a bridge between operations and corporate finance to help you effectively manage the full lifecycle of every project.
13	Oracle Sales	Oracle Sales enables you to have comprehensive customer and prospect information so that your sales organizations can meet challenging revenue goals with fewer resources. .
14	Oracle Supply Chain Management	Oracle Supply Chain Management lets you gain global visibility, automate internal processes and readily collaborate with your suppliers, customers, and partners.

Source: *http://www.oracle.com/*

We will now have a look at the business solutions offered by Microsoft.

12.9 BUSINESS SOLUTIONS FROM MICROSOFT

Microsoft Business Solutions offers integrated business applications for small and mid-sized organizations and divisions of large enterprises as well. It creates applications and services for retailers, manufacturers, wholesale distributors, and service companies.

	Table 12.4: Microsoft's Integrated Applications	
S.no.	Applications	Description
1	Analytics	Manage budgets, create and consolidate reports, and look for trends and relationships in any part of your business.
2	Portals	Deliver access to the data, applications, and services your employees, customers, and business partners need via a Web browser, and see them work more efficiently with you.
3	Customer Relationship Management	Manage customer groups, create and launch marketing campaigns, track customer activity, and organize sales and after-sales.
4	E-commerce	Let customers and suppliers do business with you anytime through Web sites or by connecting their system directly to yours.

5	Field Service Management	Set up and manage service contracts, enter and track service calls, view schedules, and optimize workloads across resources.
6	Financial Management	Control your general ledger, payables, receivables, inventory, sales process, purchasing, fixed assets, and cash flow. Perform reconciliation and collections.
7	HR Management	Manage your human resources from mapping, recruitment, and employee registration, to skills development and processing of payroll and benefits.
8	Manufacturing	Coordinate your entire manufacturing process from product configuration and supply and capacity requirements planning, to scheduling and shop floor.
9	Project Management and Accounting	Manage your resources, forecast your costs and budgets, track time and expenses, and organize contracts and billing.
10	Retail Management	Run retail operations from point-of-sale to delivery. Increase customer flow, speed up lines and tasks, control inventory, and automate purchasing.
11	Supply Chain Management	Organize single or multiple site warehouses; handle order promising, demand planning, and online collaboration with suppliers.

(Source: *http://www.microsoft.com/BusinessSolutions/Highlights/buyers_guide.mspx*

Microsoft carries out these business applications with the help of its array of business solutions like Microsoft Axapta® which offers solutions for analytics, CRM, e-commerce, financial management, HRM, manufacturing, project management and SCM; Microsoft Great Plains® which offers solutions for analytics, portals, field service management, financial management, HRM, manufacturing, project management and SCM; Microsoft Navision® which offers solutions for analytics, portals, e-commerce, financial management, HRM, manufacturing, project management and SCM and Microsoft Solomon® which offers solutions for analytics, CRM, e-commerce, financial management, project management and SCM. The figure given below highlights this.
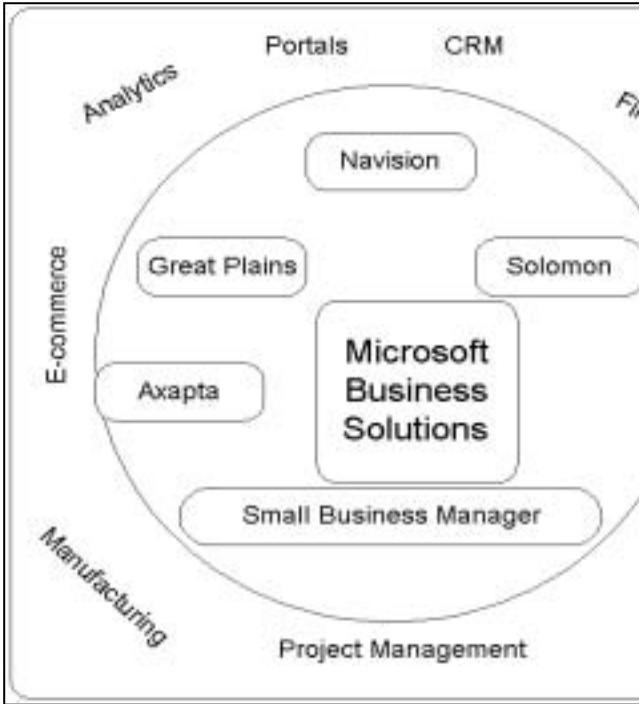

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Figure 12.6: Microsoft's Business Solutions

Presented below is a systematic presentation of the integrated applications covered by Microsoft and the business solutions it offers.

Table 12.5: Microsoft's Integrated Applications and its Business Solutions		
S.no.	Application	Solutions
1	Analytics	Axapta, Enterprise reporting, Great Plains, Navision, Solomon
2	Portals	Great Plains, Navision Portal, Solomon, Enterprise Portal
3	Customer Relationship Management	Axapta, Solomon, Field Service Management, CRM, Outlook with Business Contact Manager
4	E-commerce	Axapta, Great Plains, Navision, Solomon, Business Network, Small Business Manager
5	Field Service Management	Great Plains, Navision, Solomon
6	Financial Management	Great Plains, Navision, Solomon, Small Business Manager, Axapta
7	HR Management	Great Plains, Navision, Axapta
8	Manufacturing	Great Plains, Navision, Axapta
9	Project Management and Accounting	Great Plains, Navision, Axapta, Solomon
11	Supply Chain Management	Great Plains, Navision, Solomon, Small Business Manager, Axapta, Business network

Source:*http://www.microsoft.com/*

So, you can see that there is a solution for virtually every thing that your business needs. All the information that is given in the preceding sections is an attempt to highlight the issue that there are solutions aplenty and the need is to use them effectively to gain business advantage.

Activity B

Go to the websites of Oracle and SAP, list down five business advantages or competitive edge that their customers achieved after the implementation of their business solution.

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12.10 SUMMARY

Today's business faces a number of technology related problems. They are often run on separate software for each of their business processes like accounts, payroll, office suites etc. Supporting computers often takes their productive time and hence affects the business productivity as the employees are left with less time for doing their primary jobs. This is the reason why businesses need products that are easy to learn and use. Integration of business solutions emerges as an important tool here. They connect your customers, suppliers and employees. Thus it works for your whole business and not just one department. The unit has tried to explain the concepts of integration and has highlighted the solutions, which are available in the market today.

12.11 UNIT END EXERCISES

1) What are the technology related challenges that are invisible to your organization? Highlight the pitfalls? How integrated software applications can help in this?

2) What are integrated software applications? Talk about their advantages and business utility.

3) Write notes on the business software solutions provided by

   a) SAP

   b) PeopleSoft

   c) Oracle

   d) Microsoft

4. Compare the Business solutions provided by Microsoft and SAP. Is the rivalry justified? Clearly highlight the features which are common between the two.

12.12 REFERENCE AND SUGGESTED FURTHER READINGS

http://www.microsoft.com/businesssolutions/default.mspx for information about Microsoft business solutions.

http://www.oracle.com/applications/index.html?content.html for information about Oracle Business Suite.

http://www.peoplesoft.com/corp/en/products/ent/index.jsp for information about PeopleSoft Solutions.

http://www.sap.com/ for information about SAP Business Solutions.